

AMENDMENTS TO THE CLAIMS:

Please AMEND the claims as indicated in the listing of claims below. This listing of claims will replace all prior versions of claims in the Pending Application. The claims are marked to indicate the changes made with deletions indicated by strikethroughs and additions indicated by underlining.

Claim 1 (currently amended): A retractable ramp system comprising:

- a ramp platform;
- a ramp carriage assembly for moving said ramp platform;
- a motor;
- a motor drive shaft;
- a drive pulley ~~upon~~ connected with said motor drive shaft;
- a belt in ~~direct~~ communication with said drive pulley and said ramp carriage assembly;
- and

a ~~mechanical~~ motor release assembly configured to disconnect and connect said drive pulley from said motor.

Claim 2 (currently amended): The retractable ramp system of claim 1 wherein said mechanical motor release assembly comprises:

- a release cable; and
- a release actuator in communication with an end of said release cable, ~~said release actuator for engaging and configured to disconnect and connect and disengaging~~ said drive pulley from said motor.

Claim 3 (currently amended): The retractable ramp system of claim 2 further comprising a sliding collar mounted upon said motor drive shaft, said sliding collar ~~engaged~~ connected with said release actuator, said sliding collar comprising at least one pin extending from said collar for ~~engaging~~ connecting said drive pulley.

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Claim 4 (currently amended): The retractable ramp system of claim 2-3 wherein said release actuator comprises a first end and an opposite end, said first end pivotable about a point and said opposite end ~~engaged~~ connected with said sliding collar.

Claim 5 (currently amended): The retractable ramp system of claim 3 further comprising a keyed collar ~~mounted upon~~ connected with said motor drive shaft between said sliding collar and said drive pulley.

Claim 6 (original): The retractable ramp system of claim 5 wherein said keyed collar defines at least one opening for the passage of said pin of said sliding collar.

Claim 7 (original): The retractable ramp system of claim 3 wherein said drive pulley defines at least one opening for the insertion of said pin of said sliding collar.

Claim 8 (currently amended): The retractable ramp system of claim 3 further comprising:
a stop collar ~~mounted upon~~ connected with said motor drive shaft; and
a spring ~~upon~~ connected with said motor drive shaft between said stop collar and said sliding collar.

Claim 9 (original): The retractable ramp system of claim 1 further comprising a manual control assembly comprising:

a manual control bearing block in communication with said ramp carriage assembly;
a manual control cable in communication with said manual control bearing block; and
a crank in communication with said manual control cable.

Claim 10 (original): The retractable ramp system of claim 9 wherein said crank comprises:
a crank handle; and
a manual control pulley in communication with said crank handle and said manual control cable.

Claim 11 (original): The retractable ramp system of claim 10 further comprising:

a shaft comprising a first end and a second end, said first end of said shaft inserted into said crank handle; and

a one-way bearing inserted into said second end of said shaft, said second end of said shaft in communication with said manual control pulley.

Claim 12 (currently amended): The retractable ramp system of claim 1 wherein said ramp carriage assembly comprises:

guide shafts;

linear bearings translational along said guide shafts; and

pivot arms ~~attached to~~ connected with said linear bearings, said pivot arms pivotably ~~attached to~~ connected with said ramp platform.

Claim 13 (original): The retractable ramp system of claim 12 further comprising:

a member extending orthogonally between said pivot arms; and

a torsion bar extending orthogonally between said pivot arms.

Claim 14 (original): The retractable ramp system of claim 13 further comprising a torsion spring for preloading said torsion bar.

Claim 15 (original): The retractable ramp system of claim 14 further comprising a bar extending between said torsion bar and an end of said ramp platform for providing a downward force against an end of said ramp platform.

Claim 16 (currently amended): The retractable ramp system of claim 1 further comprising:

a ramp flap;

a ramp flap hinge in communication with said ramp flap; and

at least one ramp flap wheel ~~affixed to~~ connected with an underside of said ramp flap, said wheel translational upon said ramp platform.

Claim 17 (currently amended): The retractable ramp system of claim 16 further comprising a ramp flap actuator bracket ~~affixed to~~connected with one of said at least one ramp flap wheel, said bracket providing a force against said ramp flap upon a movement of said ramp platform.

Claim 18 (currently amended): The retractable ramp system of claim 17 wherein said ramp platform defines a cutout through which said at least one ramp flap wheel drops ~~upon~~when deployment of said ramp platform deploys.

Claim 19 (original): The retractable ramp system of claim 17 wherein said ramp platform defines a cutout through which said at least one ramp flap wheel drops upon deployment of said ramp platform.

Claim 20 (original): The retractable ramp system of claim 1 wherein said carriage assembly comprises a profile approximately equal to the profile of said ramp platform.

Claim 21 (currently amended): A method of operating a retractable ramp system, the method comprising:

- providing a ramp platform;
- moving the ramp platform with a ramp carriage assembly;
- powering the ramp platform with a motor having a motor drive shaft;
- providing a drive pulley upon the motor drive shaft;
- moving the ramp carriage assembly with a belt in ~~direct~~ communication with the drive pulley and ramp carriage assembly; and
- ~~mechanically disengaging and engaging~~disconnecting and connecting the drive pulley from the motor ~~with using a mechanical~~ motor release assembly.

Claim 22 (currently amended): The method of claim 21 wherein the step of ~~mechanically disengaging~~disconnecting and ~~engaging~~connecting the drive pulley from the motor with a ~~mechanical~~ motor release assembly comprises ~~disengaging~~disconnecting the motor from the drive pulley with a release actuator.

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Claim 23 (currently amended): The method of claim 22 wherein the step of ~~disengaging~~ disconnecting the motor from the drive pulley with a release actuator comprises pulling on the release actuator with a release cable.

Claim 24 (original): The method of claim 23 wherein the step of pulling on the release actuator with a release cable comprises pivoting an end of the release actuator about a pivot point.

Claim 25 (original): The method of claim 23 wherein the step of pulling on the release actuator with a release cable comprises translating a sliding collar along the motor drive shaft with the release actuator.

Claim 26 (currently amended): The method of claim 25 further comprising providing at least one pin extending from the sliding collar, said pin for ~~engaging~~ connecting with and ~~disengaging~~ disconnecting from the drive pulley.

Claim 27 (original): The method of claim 26 further comprising providing a keyed collar mounted upon the motor drive shaft between the sliding collar and drive pulley.

Claim 28 (original): The method of claim 27 further comprising passing a pin of the sliding collar through an opening defined in the keyed collar.

Claim 29 (currently amended): The method of claim 28 further comprising removing a pin of the sliding collar from an opening defined in the drive pulley to ~~disengage~~ disconnect the drive pulley from the motor.

Claim 30 (original): The method of claim 29 further comprising spring-loading the sliding collar with a spring force opposing the pulling force applied to the release actuator.

Claim 31 (currently amended): The method of claim 30 further comprising ~~engaging~~ connecting the drive pulley with the motor by inserting a pin of the sliding collar through an opening defined in the drive pulley with the spring force exerted on the sliding collar.

Claim 32 (currently amended): The method of claim 21 further comprising manually controlling the ramp system when the drive pulley is ~~disengaged~~ disconnected from the motor.

Claim 33 (currently amended): The method of claim 32 wherein the step of manually controlling the ramp system when the drive pulley is ~~disengaged~~ disconnected from the motor comprises:

providing a manual control bearing block in communication with the ramp carriage assembly; and

translating the ramp carriage assembly with the manual control bearing block by moving the manual control bearing block with a manual control cable in communication with the manual control bearing block.

Claim 34 (original): The method of claim 33 wherein the step of moving the manual control bearing block with a manual control cable comprises:

turning a crank handle; and

taking up the manual control cable onto a manual control pulley controlled by the crank handle.

Claim 35 (original): The method of claim 34 further comprising allowing the manual control pulley to rotate only in a single direction.

Claim 36 (currently amended): The method of claim 21 wherein the step of moving the ramp platform with a ramp carriage assembly comprises:

providing pivot arms pivotably ~~attached to~~ connected with the ramp platform;

providing linear bearings ~~attached to~~ connected with the pivot arms; and

translating the linear bearings along guide shafts.

Claim 37 (original): The method of claim 36 further comprising:

providing a member extending orthogonally between the pivot arms; and
providing a torsion bar extending orthogonally between the pivot arms.

Claim 38 (original): The method of claim 37 further comprising preloading the torsion bar with a torsion spring.

Claim 39 (original): The method of claim 38 further comprising providing a downward force against an end of the ramp platform with a bar extending between the torsion bar and an end of the ramp platform.

Claim 40 (currently amended): The method of claim 21 further comprising:

providing a ramp flap;
rotating the ramp flap with a ramp flap hinge;
providing at least one ramp flap wheel ~~affixed to~~connected with an underside of the ramp flap; and
translating a ramp flap wheel ~~upon~~connected with the ramp platform.

Claim 41 (currently amended): The method of claim 40 further comprising providing a force against the ramp flap upon a movement of the ramp platform with a ramp flap actuator bracket ~~affixed to~~connected with one of the ramp flap wheels.

Claim 42 (currently amended): The method of claim 40 further comprising dropping a ramp flap wheel into a cutout defined in the ramp platform ~~upon when a movement of the ramp platform~~moves.

Claim 43 (currently amended): A method of deploying a retractable ramp system, the method comprising:

- rotating a motor shaft;
- rotating a drive pulley with the motor shaft;
- moving a drive belt with the drive pulley;
- deploying a ramp carriage assembly for a ramp platform with the drive belt;
- pivoting the ramp platform ~~on~~ around support bearings of the ramp carriage assembly ~~after when the ramp platform is deployed~~ deploys beyond a predetermined point; and
- dropping wheels of a ramp flap into a cutout defined in the ramp platform ~~upon when deployment of the ramp platform~~ deploys.

Claim 44 (currently amended): A method of stowing a retractable ramp system, the method comprising:

- rotating a motor shaft;
- rotating a drive pulley with the motor shaft;
- moving a drive belt with the drive pulley;
- stowing a ramp carriage assembly for a ramp platform with the drive belt;
- pivoting the ramp platform ~~on~~ around support bearings of the ramp carriage assembly;
- rotating a ramp flap into a horizontal position with a force provided by brackets ~~affixed~~ teconnected with wheels ~~affixed-teconnected with~~ an underside of the ramp flap; and
- translating the ramp flap wheels along the ramp platform.

Claim 45 (new): The retractable ramp system of claim 1, wherein said belt is in connected with said drive pulley when the motor is disconnected from said drive pulley.

Claim 46 (new): The method of claim 21, wherein the belt is in connected with the drive pulley when the drive pulley is disconnected from the motor.